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Original Research Article

Diagnostic Documentation Gaps in Clinician-Documented Inflammatory Bowel Disease at a National Referral Hospital in Kenya

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Abstract: ***Background***: Inflammatory bowel disease (IBD) is increasingly reported in Africa, but diagnosis is frequently constrained by limited access to lower gastrointestinal (GI) endoscopy, histopathology, and specialist services. We compared socio-demographic characteristics and documentation of investigations/procedures among patients diagnosed with IBD versus other gastrointestinal diseases (GD) at Kenyatta National Hospital (KNH), Kenya. ***Methods***: We conducted a retrospective case–control review of KNH medical records from January 2011 to December 2024. Cases had a clinician-documented diagnosis of Crohn's disease and/or ulcerative colitis. Controls had other GD diagnoses. We summarized participant characteristics and documented investigations/procedures. Groups were compared using χ^2/Fisher's exact tests, and binary logistic regression estimated adjusted odds ratios (aOR) with 95% confidence intervals (CI). ***Results****:* Among 151 records, 45 (29.8%) were IBD and 106 (70.2%) were other GD. No socio-demographic variable (age group, sex, education, marital status, occupation) differed significantly between groups ($p>0.05$). Lower GI endoscopy (colonoscopy and/or sigmoidoscopy, recorded in charts as "endoscopy") was documented more often among IBD than GD (40.0% vs 30.2%; $p=0.046$). Gastroscopy/EGD was more frequently documented among GD than IBD (18.9% vs 2.2%; $p=0.007$), consistent with the GD case-mix. CT and MRI were infrequently documented and typically lacked protocol detail, for instance enterography vs non-specific imaging. In adjusted models, documented lower GI endoscopy was associated with being in the IBD diagnosis group (aOR 2.73; 95% CI 1.14–6.54; $p=0.024$), while gastroscopy (aOR 0.06; 95% CI 0.006–0.64; $p=0.020$) and jejunostomy (aOR 0.17; 95% CI 0.04–0.81; $p=0.026$) were inversely associated. These associations likely reflect diagnostic suspicion and access/documentation rather than causality. ***Conclusion***: Socio-demographics did not distinguish IBD from other GD in this KNH sample, but documented investigation/procedure patterns differed. Findings support standardized diagnostic pathways anchored in lower GI endoscopy with biopsy and strengthened endoscopy/histopathology capacity to reduce diagnostic delay and misclassification as IBD recognition increases in sub-Saharan Africa.

Keywords: Inflammatory Bowel Disease, Crohn's Disease, Ulcerative Colitis, Lower GI Endoscopy, Histopathology, Kenya, KNH.

INTRODUCTION

Inflammatory bowel disease (IBD), encompassing Crohn's disease and ulcerative colitis, has historically been considered rare in sub-Saharan Africa (SSA) but is now recognized as a growing public health challenge [Mapesa *et al*., 2025]. IBD has transitioned from a predominantly high-income-country condition to a global disease with rising incidence in newly industrialized and low- and middle-income settings. Recent syntheses show sustained growth in IBD prevalence worldwide, driven by urbanization, dietary transition, antimicrobial exposure, environmental change, and improved recognition [Mapesa *et al*., 2025; Ng *et al*., 2017; Kaplan & Windsor, 2021; Alatab *et al*., 2020]. Global estimates indicate a near 50% increase in IBD cases from 1990 to 2019 [Ng *et al*., 2017]. The rise in low- and middle-income countries reflects changes in diet, microbiota, urbanization, and westernization [Kaplan & Windsor, 2021]. In our recent review, we showed that emerging African evidence points to rising IBD incidence alongside persistent gaps in diagnostic capacity, underscoring the need for regional surveillance and targeted investment [Mapesa *et al*., 2025]. A recent

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study in Kenya showed a rising Gastrointestinal Diseases (GD) and IBD cases at Kenyatta National Hospital [(KNH) A primary national referral hospital in Kenya], particularly among young adults [Onono *et al*., 2025]. Limited diagnostic infrastructure, only 0.09 colonoscopes and 0.12 endoscopists per 100,000 population in Kenya [Mwachiro *et al*., 2025], hampers early detection.

There is an increase in IBD reporting in Africa [Hodges *et al*., 2025; Hodges & Kelly, 2020], yet the true burden remains uncertain because of under-diagnosis, misclassification with infectious and inflammatory enterocolitis, including intestinal tuberculosis, and limited access to definitive diagnostic tools [Mapesa *et al*., 2025; Hodges *et al*., 2025; Watermeyer *et al*., 2022]. Several studies now show that IBD as an emerging public health challenge on the continent, noting rising case reports and series alongside major gaps in surveillance, specialist services, and equitable access to healthcare [Mapesa *et al*., 2025; Hodges *et al*., 2025; Watermeyer *et al.,* 2023; Gearry *et al*., 2023]. New multi-country network data from SSA further suggest that IBD is being recognized more frequently than previously reported, often among young adults [Hodges *et al*., 2025]. Accurate diagnosis of IBD relies on integrating clinical features with endoscopy, histopathology, imaging, and laboratory markers; endoscopy with biopsy remains central to confirming disease type and extent and excluding important differentials [Mwachiro *et al*., 2021; Moran *et al*., 2025; Musa *et al*., 2025]. However, endoscopy capacity is constrained in eastern SSA, including Kenya, because of workforce shortages, limited equipment, and uneven distribution of services [Mwachiro *et al*., 2021]. These challenges can prolong diagnostic delay, increase complication risk, and increase disability and costs [Alatab *et al*., 2020; Watermeyer *et al.,* 2022; Sturm *et al*., 2018].

Kenya currently lacks nationally representative estimates of IBD burden and has limited published evidence on sociodemographic impacts [Wardle *et al.,* 2017] and diagnostic pathways [Gearry *et al*., 2021] in routine care. Within this context, KNH provides a critical lens on how patients with IBD and other GD are evaluated in real practice. Understanding local IBD epidemiology is vital to inform healthcare planning [Muzammil *et al*., 2023]. Rather than estimating the true burden of confirmed IBD, this study examines how IBD was documented in routine care and whether lower gastrointestinal endoscopy, histopathology, imaging, and other procedures were consistently recorded among patients labelled as IBD in a tertiary referral hospital archive.

Experimental Section

Selection and Description of Participants:

We retrospectively reviewed medical records at Kenyatta National Hospital (KNH), a tertiary national referral facility in Nairobi, Kenya, covering January 2011 to December 2024. We screened records of patients evaluated for gastrointestinal symptoms and included records with sufficient documentation to classify diagnosis and investigations.

Case Definition and Diagnostic Confirmation:

IBD cases were defined as records with a clinician-documented diagnosis of Crohn's disease and/or ulcerative colitis. Because this was a retrospective review of routine medical records, case classification reflected the diagnosis recorded in the patient chart rather than independent re-adjudication by the study team. We therefore treated IBD as a clinician-documented diagnostic category. Where available, we extracted supportive documentation, including lower gastrointestinal endoscopy, biopsy, histopathology, imaging, and laboratory investigations. Lower gastrointestinal endoscopy was documented in 18 of 45 IBD records. Histopathology reports were variably filed and could not be consistently retrieved across the archive; therefore, histopathological confirmation could not be quantified reliably. For this reason, the study distinguishes clinician-documented IBD from endoscopy-documented IBD records, but does not claim that all IBD records were uniformly histologically confirmed.

Data Collection and Measurements:

We extracted socio-demographic characteristics (age group, sex, marital status, occupation, education level, residence, and health insurance). We also extracted whether key tests and procedures were documented as performed during the diagnostic work-up and/or hospital course (e.g., complete blood count, liver and renal function tests, C-reactive protein where recorded, stool studies, ultrasound, CT, MRI, lower GI endoscopy, gastroscopy/EGD, and enteral access procedures such as jejunostomy). For CT and MRI, protocol details (e.g., enterography) were rarely specified; therefore, imaging was analyzed as CT/MRI documented without assumptions about enterography.

Statistics:

Data were abstracted using a structured tool and cross-checked for internal consistency. Identifiers were removed prior to analysis. Analyses were conducted in IBM SPSS, v27 (IBM Corp., Armonk, NY, USA). Descriptive statistics were summarized as frequencies and percentages. Group comparisons used χ^2 tests (or Fisher's exact test where appropriate). Binary logistic regression was used to estimate odds ratios (OR) and 95% confidence intervals (CI) for associations between selected documented procedures and being in the IBD diagnosis group; interpretation is cautious because procedures are part of the diagnostic pathway rather than independent causal exposures.

Ethical Considerations:

The study used secondary data from medical records. Ethical approval was obtained from the KNH/UoN Ethics and Research Committee (KNH-ERC/RR/126) and NACOSTI permit (750425). Consent was waived because the study posed minimal risk and used de-identified data.

RESULTS

Socio-Demographic Characteristics

Table 1 describes participant characteristics. In this sample of 151 participants, the population was predominantly young to middle-aged (mean age 38.6 years), with over half aged 0–40 years (56.3%) and most under 60 years (83.4%). Females were slightly more represented than males (52.3% vs 47.7%). Marital status was evenly split between married (44.4%) and single (43.0%), with 12.6% separated. Educational attainment was concentrated at secondary (41.7%) and primary level (33.1%), together accounting for 74.8%, while 21.2% had tertiary education. Regarding occupation, unemployment was the most common category (35.8%), followed by self-employment (27.2%), with smaller proportions in formal employment (13.2%), casual labor (10.6%), and minors (13.2%).

Diagnoses Categorization

Table 2 shows that other gastrointestinal diseases (GD) formed the majority of diagnoses (70.2%), while IBD accounted for 29.8%. Within the 106 GD group, gastro-esophageal and gastric disorders were the most common category (43.7%), followed by infectious/acute gastrointestinal conditions (21.9%), and hepatobiliary/pancreatic diseases (4.6%). Table 3 shows that among the 45 records with clinician-documented IBD, lower gastrointestinal endoscopy was documented in 18 records (40.0%). The remaining 27 records had a recorded IBD diagnosis but no retrievable documentation of lower GI endoscopy in the abstracted chart. Histopathology reports were not consistently retrievable across the archive and therefore could not be quantified as a confirmation criterion. These findings indicate that a substantial proportion of clinician-documented IBD diagnoses lacked complete retrievable confirmatory documentation in the available records. When procedure documentation was compared between clinician-documented IBD and other GD records, lower GI endoscopy was more frequently documented among IBD records than GD records, while gastroscopy/EGD and jejunostomy were more frequently documented among GD records. These differences should be interpreted as patterns of documented diagnostic work-up rather than evidence of diagnostic accuracy or causality.

Association with IBD Diagnosis

To determine if socio-demographic characteristics were associated with diagnosis (IBD vs other GD), we compared age, gender, education, marital status, and occupation between the two groups using chi-square tests (Table 4). Age group was not associated with diagnosis (χ^2=1.74, p=0.627), and neither was gender (χ^2=0.821, p=0.365). Educational attainment showed no significant association with diagnostic category (χ^2=3.00, p=0.390), and marital status was similarly non-significant (χ^2=1.18, p=0.554). Occupation was also not associated with diagnosis (χ^2=3.36, p=0.500). Overall, IBD and other GD were distributed similarly across the measured socio-demographic characteristics.

Patterns of investigations and procedures

To determine if investigations and procedures differed by diagnosis (IBD vs other GD), we compared documentation of key tests and procedures between the two groups using chi-square tests (Table 5). Most investigations showed no statistically significant difference between groups, including physical examination (p=0.222), ultrasound (p=0.759), blood tests (p=0.318), stool tests (p=0.669), X-ray (p=0.878), CT scan (p=0.815), MRI (p=0.614), bone chemistry (p=0.269), liver function tests (p=0.470), and urea/electrolytes/creatinine tests (p=0.255). IBD diagnostic confirmation (chart documentation): Lower GI endoscopy (colonoscopy and/or sigmoidoscopy, recorded in charts as “endoscopy”) was documented for 18/45 (40.0%) IBD records. Histopathology support could not be quantified consistently because pathology reports were variably filed and not reliably retrievable across the full archive, while gastroscopy (2.2% vs 18.9%; χ^2=7.31, p=0.007) and jejunostomy (6.7% vs 20.8%; χ^2=4.54, p=0.033) were more frequently documented among GD controls. Overall, the investigation profile was largely similar across groups, with significant differences observed for endoscopy, gastroscopy, and jejunostomy.

We fitted an exploratory logistic regression model to assess whether selected documented procedures were associated with being in the clinician-documented IBD group rather than the GD group. Because these procedures form part of the diagnostic pathway, the adjusted odds ratios should not be interpreted as causal effects or independent diagnostic predictors. They are best understood as indicators of how diagnostic work-up was documented in routine care (Table 6). After adjustment, documented lower GI endoscopy was associated with higher odds of being in the IBD diagnosis group (aOR 2.73; 95% CI 1.14–6.54; p=0.024). In contrast, gastroscopy/EGD (aOR 0.06; 95% CI 0.006–0.64; p=0.020) and jejunostomy (aOR 0.17; 95% CI 0.04–0.81; p=0.026) were associated with lower odds of an IBD diagnosis, consistent with these procedures being more common in non-IBD diagnostic pathways within the heterogeneous GD group. Estimates, particularly for gastroscopy, should be interpreted cautiously given sparse counts in the IBD group.

Table 1: Sociodemographic characteristics of the study participants (n=151)

Characteristic	n (%)
Age (Years)	
0-20	29 (19.2)
21-40	56 (37.1)
41-60	41 (27.2)
61-80	25 (16.5)
Mean age: 38.6±2.41	
Gender	
Male	72 (47.7)
Female	79 (52.3)
Marital status	
Single	65 (43.0)
Married	67 (44.4)
Separated	19 (12.6)
Educational attainment	
Pre-school	6 (4.0)
Primary	50 (33.1)
Secondary	63 (41.7)
Tertiary	32 (21.2)
Occupation	
Self-employed	41 (27.2)
Employed	20 (13.2)
Casual laborer	16 (10.6)
Unemployed	54 (35.8)
Minor	20 (13.2)

Table 2: Diagnostic categories in the study sample

Diagnosis / category	n (%)
IBD (Crohn's Disease and/or Ulcerative Colitis)	45 (29.8)
Other Gastrointestinal Diseases (GD) – total	106 (70.2)
Categorization based on similarities in etiology, pathophysiology, and clinical presentation of GD	
Gastro-esophageal and gastric disorders	66 (43.7)
Infectious/acute gastrointestinal conditions	33 (21.9)
Hepatobiliary and pancreatic diseases	7 (4.6)

Table 3: Diagnostic documentation status among clinician-documented IBD records, n=45

Documentation feature	n/N	%
Clinician-documented IBD diagnosis	45/45	100.0
Lower GI endoscopy documented	18/45	40.0
No lower GI endoscopy documented in retrieved chart	27/45	60.0
Histopathology report consistently retrievable across archive	Not quantifiable	—
CT documented	9/45	20.0
MRI documented	5/45	11.1
Note: *Lower GI endoscopy refers to colonoscopy and/or flexible sigmoidoscopy as recorded in the chart. Histopathology could not be reliably quantified because pathology reports were variably filed and not consistently retrievable across the archival record.*		

Table 4: Association between socio-demographic characteristics and diagnosis (IBD vs other GD)

Characteristic	IBD n (%)	GD n (%)	χ^2 (p-value)
Age (Years)			
0-20	8 (17.8)	21 (19.8)	1.74 (0.627)
21-40	19 (42.2)	37 (34.9)	
41-60	13 (28.9)	28 (26.4)	
61-80	5 (11.1)	20 (18.9)	
Gender			
Male	24 (53.3)	48 (45.3)	0.821 (0.365)
Female	21 (46.7)	58 (54.7)	

Characteristic	IBD n (%)	GD n (%)	χ^2 (p-value)
Educational attainment			
Primary	18 (40.0)	32 (30.2)	3.00 (0.390)
Secondary	14 (31.1)	49 (46.2)	
Tertiary	11 (24.4)	21 (19.8)	
Pre-school	2 (4.4)	4 (3.8)	
Marital status			
Single	17 (37.8)	48 (45.3)	1.18 (0.554)
Married	23 (51.1)	44 (41.5)	
Separated	5 (11.1)	14 (13.2)	
Occupation			
Self-employed	13 (28.9)	28 (26.4)	3.36 (0.500)
Employed	8 (17.8)	12 (11.3)	
Casual laborer	2 (4.4)	14 (13.2)	
Unemployed	16 (35.6)	38 (35.8)	
Minor	6 (13.3)	14 (13.2)	

Table 5: Investigations and procedures documented during management among IBD cases and GD controls

Investigation / procedure	IBD n (%)	GD n (%)	χ^2 (p-value)
Physical examination	7 (15.6)	26 (24.5)	1.49 (0.222)
Ultrasound	20 (44.4)	50 (47.2)	0.09 (0.759)
Lower GI endoscopy (colonoscopy/sigmoidoscopy)	18 (40.0)	32 (30.2)	5.37 (0.046)
Blood tests	10 (22.2)	32 (30.2)	1.00 (0.318)
Stool test	17 (37.8)	44 (41.5)	0.18 (0.669)
X-ray	12 (26.7)	27 (25.5)	0.02 (0.878)
CT scan (protocol not specified in most charts)	9 (20.0)	23 (21.7)	0.06 (0.815)
MRI (protocol not specified in most charts)	5 (11.1)	15 (14.2)	0.25 (0.614)
Gastroscopy/EGD	1 (2.2)	20 (18.9)	7.31 (0.007)
Jejunostomy	3 (6.7)	22 (20.8)	4.54 (0.033)
Bone chemistry	7 (15.6)	25 (23.6)	1.22 (0.269)
Liver function test	36 (80.0)	79 (74.5)	0.52 (0.470)
Urea/electrolytes/creatinine	37 (82.2)	78 (73.6)	1.30 (0.255)
Lower GI endoscopy refers to colonoscopy and/or flexible sigmoidoscopy (with biopsy where documented). Upper GI endoscopy refers to gastroscopy/oesophagogastroduodenoscopy (EGD).			

Table 6: Exploratory logistic regression of documented procedures associated with clinician-documented IBD status

Procedure (reference outcome: IBD)	Adjusted OR	95% CI	p-value
Lower GI endoscopy (colonoscopy/sigmoidoscopy)	2.732	1.143-6.536	0.024
Gastroscopy	0.060	0.006-0.644	0.020
Jejunostomy	0.173	0.037-0.807	0.026
Note: Outcome was clinician-documented IBD versus other gastrointestinal disease. Estimates reflect associations with chart-documented procedure patterns and should not be interpreted as causal or as evidence of diagnostic validity.			

DISCUSSION

This retrospective chart review does not provide a definitive comparison between fully confirmed IBD and non-IBD gastrointestinal disease. Instead, it highlights an important routine-care problem in an African tertiary referral setting: IBD was recorded in clinical charts, but confirmatory documentation was incomplete or inconsistently retrievable for many records. Lower gastrointestinal endoscopy was documented in only 40% of clinician-documented IBD records, and histopathology confirmation could not be consistently quantified. The study therefore contributes evidence on diagnostic documentation gaps, case ascertainment limitations, and procedure-use patterns rather than definitive evidence on IBD epidemiology or diagnostic accuracy [Sempere *et al*., 2023]. Most investigations were documented at similar frequencies across groups; however, endoscopy stood out as both significantly more common among IBD cases and independently associated with an IBD diagnosis, while gastroscopy and jejunostomy were more frequent among GD controls and inversely associated with IBD. These patterns underscore why evidence from routine African care settings remains essential: even as IBD is increasingly recognized, diagnostic pathways continue to hinge on access to endoscopy, histopathology, and specialist capacity that are often constrained in practice [Mapesa *et al.,* 2025; Mwachiro *et al*., 2021; Hodges *et*

al., 2020; Watermeyer *et al*., 2023].

Across the measured socio-demographic variables, we observed no evidence of differentiation between IBD and other GD, indicating that age, sex, education, occupation, residence, and insurance status did not reliably separate diagnostic groups in this cohort. This aligns with African hospital-based reports and recent regional syntheses showing that IBD is commonly identified in young to middle-aged adults, but that demographic patterns are heterogeneous and strongly shaped by how cases are detected and confirmed within health systems [Hodges *et al.*,2020; Hodges & Kelly, 2020; Solitano *et al*.,2025]. The higher frequency of documented lower GI endoscopy among patients diagnosed with IBD should not be interpreted as causal. It most plausibly reflects diagnostic indication and clinician suspicion, alongside differential access and documentation, because colonoscopy/sigmoidoscopy with biopsy is central to confirming IBD and excluding key differentials. [Moran *et al*., 2025; Musa et al., 2025; Sturm *et al*., 2018]. Lower GI endoscopy was documented in only 40% of IBD charts, underscoring constraints in endoscopy access and/or documentation. Histopathology confirmation could not be quantified consistently due to variable filing of pathology reports within archival records; this limitation highlights the need to strengthen both diagnostic capacity and documentation systems. Gastroscopy/EGD and jejunostomy were more frequently documented among GD controls. This likely reflects the GD case-mix (including gastro-esophageal/gastric disorders) and differences in procedural indications rather than IBD-specific practice differences. Future studies should prioritize symptom-matched comparison groups (e.g., chronic diarrhea, abdominal pain, weight loss, blood in stool) and prospective capture of indications for procedures to improve interpretability. CT and MRI were infrequently documented and typically lacked protocol detail (enterography vs non-specific imaging). Therefore, conclusions about guideline-concordant imaging for IBD evaluation cannot be made from these data [Mwachiro *et al*., 2021; Watermeyer *et al*., 2022; Choung *et al*., 2023].

In contrast, gastroscopy and jejunostomy were more commonly documented among the GD group, and were associated with lower odds of IBD diagnosis. These procedures are not diagnostic hallmarks of IBD; rather, they may reflect the underlying case-mix within the GD group and the clinical pathways that follow from those diagnoses. This observation nonetheless indicates that the type of procedures performed in clinical routine care can differ significantly between IBD and non-IBD gastrointestinal presentations, and that clearer documentation and standardized diagnostic pathways may reduce misclassification [Solitano *et al*., 2025]. African literature reviews consistently emphasize late presentation, overlap with infectious diseases, limited diagnostic capacity, and restricted access to advanced therapies as key barriers to IBD management [Mapesa *et al*., 2025; Hodges & Kelly, 2020; Watermeyer *et al*., 2023]. From a public health perspective, the growing visibility of IBD in Africa, against a background of rapid urbanization and dietary transition, supports integrating IBD into non-communicable disease strategies, strengthening surveillance, and building multidisciplinary healthcare models that include gastroenterology, pathology, radiology, nutrition, and mental health support [Mapesa *et al*., 2025; Ng *et al.*, 2017; Solitano *et al*., 2025; Watermeyer *et al*., 2022; Bischoff *et al*., 2023].

To translate these findings into better outcomes, KNH and other tertiary facilities should institutionalize a standardized IBD diagnostic pathway that accelerates access to endoscopy with biopsy, appropriate cross-sectional imaging, and systematic exclusion of key differentials that commonly mimic IBD in African settings [Watermeyer *et al*., 2022; Moran *et al*., 2025; Sturm *et al.,* 2018]. In parallel, national and county health planners should strengthen endoscopy and histopathology capacity, through workforce development, equipment procurement and maintenance, and functional referral networks, while reducing out-of-pocket costs that delay timely diagnosis and care [Burisch *et al*., 2025]. Given the apparent emerging burden, Kenya should also establish an IBD surveillance and registry framework, aligned with developing African network efforts, to improve case ascertainment, quantify burden, and guide rational resource allocation [Mapesa *et al*., 2025; Hodges *et al*., 2025]. Finally, routine IBD services should be overtly multidisciplinary, integrating nutrition care [Massironi *et al*., 2023; Hashash *et al*.,2024] and psychosocial support as core components of management, consistent with international clinical nutrition guidance and the lived burden of chronic gastrointestinal disease in IBD and other GD [Bischoff *et al*.,2023]. From a health-systems perspective, these findings support institutionalizing standardized IBD diagnostic pathways that accelerate access to lower GI endoscopy with biopsy, improve histopathology availability and retrieval, and strengthen referral networks and affordability to reduce diagnostic delays and misclassification. [Solitano *et al*., 2025].

CONCLUSION

In this retrospective review of routine medical records at KNH, socio-demographic characteristics did not distinguish patients with clinician-documented IBD from those with other gastrointestinal diseases. Lower gastrointestinal endoscopy was more frequently documented among IBD records, but only 40% of IBD charts had retrievable lower GI endoscopy documentation, and histopathology confirmation could not be consistently quantified. These findings should therefore be interpreted as evidence of diagnostic documentation gaps and variable case ascertainment rather than definitive differences between confirmed IBD and non-IBD groups. Strengthening standardized

IBD diagnostic pathways, endoscopy access, biopsy documentation, histopathology retrieval, and prospective registries is essential for improving IBD recognition and surveillance in Kenya.

Strengths and Limitations

The most important limitation is that IBD case classification was based on clinician-documented diagnosis rather than uniform independent confirmation using endoscopy and histopathology. Therefore, the IBD group may include a mixture of confirmed, probable, and incompletely documented cases. Because histopathology reports were not consistently retrievable, the study cannot estimate the proportion of histologically confirmed IBD. This limits internal validity and means that comparisons between IBD and GD groups should be interpreted as comparisons between chart-documented diagnostic categories, not as comparisons between definitively confirmed disease groups. The study should therefore be viewed as a health-system and documentation audit of IBD diagnostic pathways in routine care, rather than a definitive clinical epidemiology study of confirmed IBD.

What is Already Known: IBD is increasingly recognized in sub-Saharan Africa, but diagnosis is constrained by limited endoscopy, histopathology, imaging, and specialist capacity.

What this Study Adds: This KNH chart review shows that IBD may be documented in routine care even when retrievable confirmatory evidence is incomplete. Only 40% of clinician-documented IBD records had documented lower GI endoscopy, and histopathology could not be consistently quantified.

Implication: African referral hospitals need standardized IBD diagnostic pathways, better linkage between endoscopy and pathology records, and prospective IBD registries to improve case ascertainment.

Source of Funding: None.

Conflicts of Interest: None declared.

Study Registration: Not applicable (retrospective observational chart review)

Ethics Statement: This study was conducted in accordance with the ethical principles of the Declaration of Helsinki. All procedures involving human participants were performed in compliance with internationally accepted ethical standards for research. The study design, data collection, and analysis respected participants' rights, safety, dignity, and confidentiality. Relevant ethical approvals were obtained prior to commencement of the study (Reference Number: KNH-ERC/RR/126), and the research was carried out with due regard to responsible and ethical scientific conduct.

Declaration of AI Use

Artificial intelligence tools, including large language models (ChatGPT, OpenAI), were used to assist with language editing and clarity of the manuscript. The use of these tools was limited to improving grammar, structure, and readability. No artificial intelligence tools were used in the study design, data collection, data analysis, interpretation of results, or generation of scientific conclusions. The authors take full responsibility for the content of the manuscript.

REFERENCES

- Mapesa J, Onono R, Stella, Ndirangu F. Inflammatory Bowel Disease in Africa: A Growing Public Health Challenge. J Enterocolitis [Internet]. 2025; Available from: https://jenterocolitis.org/article/81
- Ng SC, Shi HY, Hamidi N, Underwood FE, Tang W, Benchimol EI, et al. Worldwide incidence and prevalence of inflammatory bowel disease in the 21st century: a systematic review of population-based studies. Lancet. 2017;390.
- Kaplan GG, Windsor JW. The four epidemiological stages in the global evolution of inflammatory bowel disease. Nat. Rev. Gastroenterol. Hepatol. 2021.
- Alatab S, Sepanlou SG, Ikuta K, Vahedi H, Bisignano C, Safiri S, et al. The global, regional, and national burden of inflammatory bowel disease in 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study2017. Lancet Gastroenterol Hepatol. 2020;5.
- Onono RK, Munene SM, Thiauru LM, Mapesa JO. An analysis of diets among patients with gastrointestinal disorders and a comparison of treatments, supplement use, and symptoms in Inflammatory Bowel Disease compared with other gastrointestinal disorders at Kenyatta National Hospital, Kenya. World Nutr [Internet]. 2025; 16:118–25. Available from: https://worldnutritionjournal.org/index.php/wn/article/view/1248
- Mwachiro M, Topazian HM, Kayamba V, Mulima G, Ogutu E, Erkie M, et al. Gastrointestinal endoscopy capacity in Eastern Africa. Endosc Int Open. 2021;09.
- Hodges P, Adeniyi O, Devani S, Nwoko C, Owoseni O, Boateng KGA, et al. Emerging patterns of inflammatory bowel disease in sub-Saharan Africa: 175 cases from an IBD network. J Crohn's Colitis. 2025;
- Hodges P, Kelly P. Inflammatory bowel disease in Africa: What is the current state of knowledge? Int Health. 2020;12.
- Watermeyer G, Katsidzira L, Setshedi M, Devani S, Mudombi W, Kassianides C.

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